

Outlet



MONTANA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

January 2020

Welcome to a New Decade by Steve Dalbey MTAFS president



Steve having a great hunt with his dog Jig.

In September 2020, MTAFS officers transition. I am honored to serve as your president following Brian Ertel's leadership of the Chapter. A huge thank you to Brian for his work and his efforts to bring attention to several important issues: working to improve engagement with our tribal colleges, bringing attention to poor MTAFS Committee member participation, and improving Chapter outreach (Twitter, Instagram, Facebook). These remain very important issues and I will work with Brian to continue these efforts in the coming year. In addition, I will work to host a quality, field-based continuing education course this summer. We are considering hosting a field-based electrofishing course taught by Dr. Jim Reynolds. A poll will be coming out soon to gauge your

interest in this or other continuing education topics. The annual meeting is just around the corner and President Elect Jim Dunnigan has done a spectacular job of organizing and putting together a meeting that you will not want to miss. The 2020 meeting topic is "Celebrating fish diversity in Montana, native and non-native alike, including opportunities and challenges." You will be impressed with the wide diversity of presentations that include: efficacy of the Endangered Species Act in Montana, aquaculture, management of Montana's recreational resources and native species habitat projects just to name a few. Because of the volume of speakers, we will have concurrent sessions on Thursday which really speaks to Jim's desire to have something for everybody. Thanks to those of you that are presenting and stepping up to assist with the annual meeting. I cannot overstate the importance of membership involvement and participation. If you want to volunteer to assist with the meeting, please contact Bri-

an Ertel and sign up.

I would encourage all of you to attend this year's business meeting. We will have representation from National AFS and Western Division AFS. One of the topics that we will be discussing is the newly drafted AFS position statement on Climate Change and Chapter Advocacy. Advocacy is something the chapter has wrestled with over the years I'm confident we will have a robust discussion!

Please look over the meeting agenda that will be coming out soon and seriously consider attending (if you are on the fence). Please reach out to colleagues that are not affiliated with the chapter and invite them to the meeting. It's going to be a great meeting and I look forward to seeing you all there! I'll end with three words that I recently saw on my travels. These three words summarize what the Montana Chapter of AFS is all about!

Learn - Serve - Lead

Have fun,
Steve

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IMPORTANT DATES

FEBRUARY 7, 2020

MTAFS CHAPTER AWARD
NOMINATIONS DUE

-FEBRUARY 14, 2020

EARLY REGISTRATION ENDS
FOR ANNUAL CHAPTER MEETING IN KALISPELL, MT

-FEBRUARY 25, 2020

ANNUAL MTAFS MEETING IN
KALISPELL, MT

Outlet

Greetings from the Montana AFS President-Elect by Jim Dunnigan



Jim enjoying a great day of Coho fishing.

During the week of February 25th, our chapter will convene our annual chapter meeting in Kalispell to celebrate our chapter's 53rd anniversary. Our chapter meetings represent the preeminent gathering of fisheries professionals from around the state, and I hope the agenda lives up to

that standard. The theme for this year's meeting is: **Celebrating fish diversity in Montana, native and non-native alike, including opportunities and challenges.**

I selected it for several reasons, but perhaps one of the most important being that it promoted an incredibly diverse program that engages our diverse membership from across this great state. The photographs in this issue of the Outlet are a testament to that diversity. If you're undecided about attending, I encourage you to check out the agenda on our chapter's website because it's not too late to register. Many thanks to our members who will be giving one of the 67 oral or 10 poster presentations. This incredibly robust agenda

forced me to make a difficult choice. We had too many presentations submitted to fit into a single session program, so I elected to include a single afternoon of concurrent sessions on Thursday instead of rejecting presentations.

I hope that our theme, supporting symposia, contributed papers and poster I have planned for this conference contribute to a healthy discussion that helps us understand the need for balance, compromise and teamwork that's required to keep our fisheries some of the most envied across the nation. I hope to see you in Kalispell in February.

"MANY THANKS
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Montana AFS 2019 Photo Contest by MTAFS Newsletter editor Sam Bourret



Sam with a nice smallmouth

In 2019 the Montana Chapter of the American Fisheries Society held its first ever photo contest. The contest was a way to invigorate chapter membership through participation and highlight the amazing experiences we all share

through our love of fisheries, Montana, and the profession that is responsible for making these images happen.

The 2019 photo contest had four categories including fieldwork, fish, landscape, and outreach. We had a total of 41 entries in the contest across the broad categories. I was astounded by the quality and beauty of the submissions, and judging the winners was a hard decision. These images are valuable to our chapter for use on our website, newsletter, slideshows at meetings, and outreach.

To all the participants in the photo contest, thank you so much,

and to the winners, congratulations! All of the images will be on display in a slide show during the annual meeting, and the prizes will be distributed during the business lunch. I would like to especially recognize **Mystery Ranch Backpacks** from Bozeman and **Behring Made Knives** from Missoula for graciously donating prizes for the winners. I would appreciate any feedback or comments that would make the next contest better. Enjoy the photos and I look forward to the next contest.

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Field Work winner—Pat Bigelow



Field Work runner up—Casey Hackathorn



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Fish winner—Jason Blakney



Fish runner up—Leslie Nyce



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Landscape winner—Robert Al-Chokhachy



Landscape runner up—Craig Barfoot



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Outreach winner—Chris Guy



Outreach runner up— Jason Blakney



Fish Talk featuring Brian Marotz, FWP Hydrosystem Coordinator, by Sam Bourret

Outlet: What inspired you to work in the fisheries field?

BM: My older brother Alan started scuba diving when we were young and he took me diving when I was 11 years old; I became certified when I was 12. I remember when I looked around underwater for the first time and realized there was a whole other world down there that captured my interest. During my first dives in my native Wisconsin, I watched Northern Pike lurking with their noses sticking out of the weed beds and ambushing small fish right in front of my eyes. I also dove on healthy coral reefs in the tropics. Seeing fish behavior in their natural habitats was inspirational. I was hooked.

Outlet: Where did you start your fisheries career?

BM: My first job was restoring stream habitat in northern Wisconsin with the Department of Natural Resources. I earned my undergraduate degree in biology from the University of Wisconsin Stevens Point and finished with a semester at sea at Woods Hole Oceanographic Institute. My graduate degree from Louisiana State University, Baton Rouge, focused on saltwater intrusion caused by man-made canals in coastal estuaries. I also studied a semester at the Gulf Coast Research Institute in Mississippi. I was interested in estuarine science because carbon fixation, and hence food production in estuaries, exceeds all other

ecosystems on Earth, except for oceanic upwelling zones. Also, 60% of the humans live on or near estuaries, so that is where impacts are greatest. I studied these environments because I wanted to have maximal impact on preserving the ecosystems that sustain us.

Outlet: Wow, what an interesting career path, but that sounds a whole lot different than cold clear oligotrophic ecosystems of Northwest Montana. How did you make it to Montana to work in fisheries?

BM: After witnessing the pollution and destruction of the Louisiana coastline for several years, I realized that to maintain my sanity, I'd better devote my career to a place where I want to live. I left my research associate position at LSU for a 13-month term contract with FWP measuring instream flows needed to maintain fisheries health in 12 spawning streams in the Kootenai drainage. Part way into that position, I wrote a proposal to survey the rest of the important spawning streams in the Kootenai where instream flow measurements were needed. The Northwest Power and Conservation Council accepted that proposal and Bonneville Power Administration extended my funding to 3 years. Then I was transferred to Kalispell on a new BPA-funded contract to model dam operations to sustain fisheries in Hungry Horse and

Libby reservoirs. Later, I had the opportunity to supervise the fisheries mitigation programs, and 12 years ago I began coordinating hydropower mitigation statewide. I've lived in Kalispell ever since.

Outlet: What was one of the most fun moments in your fisheries career?

BM: I was on the Kootenai White Sturgeon recovery team from its inception for over a decade where my passion drove me to help recover that amazing species. One time, I had the opportunity to catch White Sturgeon via hook and line to gather gametes for the Kootenai Tribe of Idaho's conservation hatchery. I landed a mature male, and I remember my arms aching fighting that fish. We extracted its milt, checked the motility of the sperm, then we used his sperm to fertilize eggs. I remember sitting there in the middle of the night stirring the gametes together with a feather. I joked that there might now be thousands of juvenile sturgeon in the Kootenai that look just like me! It was so rewarding!!

Outlet: How have you been able to stay current and adapt to changes in the fisheries field over your 34-plus year career as a scientist, policy maker, field worker, and modeler?

BM: FWP gave me the freedom to chase the data. While researching how best to man-



Brian Marotz doing some diving below the ice in Montana

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Fish Talk featuring Brian Marotz continued

age reservoirs based on dam operations, it seemed obvious to also include operations for downstream river habitat, so I wrote proposals to research how to optimize reservoir and river fisheries. The next progression was to figure out how Montana's dams to fit into the Columbia system at large. The Columbia Basin Fish and Wildlife Authority enabled me to interact with stakeholders throughout the Columbia Basin and US and Canadian dam operators, who taught me how the system worked. The challenge of designing operating rules to benefit fish while still maintaining power revenues and managing floods, kept my interest.

Outlet: What has kept you motivated throughout your career?

BM: Some of the most motivating events were early successes that effectively improved habitat and biological production in rivers and reservoirs. Small successes motivated me to work on larger projects and I found that with patience and persistence we can affect change at the landscape scale. Surrounding myself with talented colleagues from state and federal agencies, universities and tribes, we restored natural temperatures downstream of Hungry Horse Dam and protected the native fish assemblage upstream. Our plan for operating Montana dams was implemented in 2009. Another motivating factor was fear, because I saw what human impacts such as invasive species, pollution, and over harvest have done to

fisheries worldwide. This has always been very serious to me and I was driven to do something about these issues since I was a child.

Outlet: What are some challenges fisheries face in the future?

BM: As human populations boom, greater strain is being placed on declining global fisheries, which has increased demands on freshwater fisheries. We can create a better future if we rapidly transition from fossil fuels to renewable energy, which will make fishing profitable while reducing carbon emissions and ocean acidification. Climate model predictions and stream temperature records show that species that depend on cold, clean water will be increasingly vulnerable to negative interactions with nonnative species and pathogens, and habitat loss. We must use innovative techniques such as selective withdrawal at dams to mitigate excessive river temperatures, and improve fish passage to avoid squeezing cold water species into smaller and smaller habitats as waters warm. Reduced stream flows during summer allows water to warm more quickly, so understanding what healthy habitat looks like now will help us preserve and restore ecosystems in the future. Another component includes preserving genetic diversity. We need to create genetic reserves for all remaining aboriginal fish species. Maintaining native fish populations will sometimes require heavy-handed man-

agement practices like piscicide treatments to remove invasive species and fish barriers to isolate or reconnect fragmented populations. Hatchery intervention will be necessary to establish genetic reserves for unique stocks. We also need to make sound decisions for fish farms to avoid impacting wild stocks as human demands for protein increase.

Outlet: What was something you wished you knew early in your career?

BM: I didn't know how to supervise people when I started my career. Staff taught me how to delegate and empower colleagues to be creative. It's crucial to give people credit when they do things right, but as a supervisor, it's important to always take the heat when things go wrong. Be humble enough to realize that everyone has talents and the key is to harness that energy to accomplish goals together. Another thing I wish I'd realized is how bureaucratic process can eat your lunch. Some folks think their job is to produce shelf art and spin their wheels in meetings, and believe me, I've had to do more than my share of both. Admittedly, process is a necessary evil, but never lose sight of the real prize. Our goal is to get things done on-the-ground for the species we manage. It's not about us (i.e. power or personal acclaim) it's about sustaining natural resources for future generations.

“WE CAN CREATE A BETTER FUTURE IF WE RAPIDLY TRANSITION FOR FOSSIL FUELS TO RENEWABLE ENERGY, WHICH WILL MAKE IT PROFITABLE WHILE REDUCING CARBON EMISSIONS AND OCEAN ACIDIFICATION.”

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Honorable Mention—Field Work



Leo Rosenthal



Chris Guy

Honorable Mention—Fish



Craig Barfoot



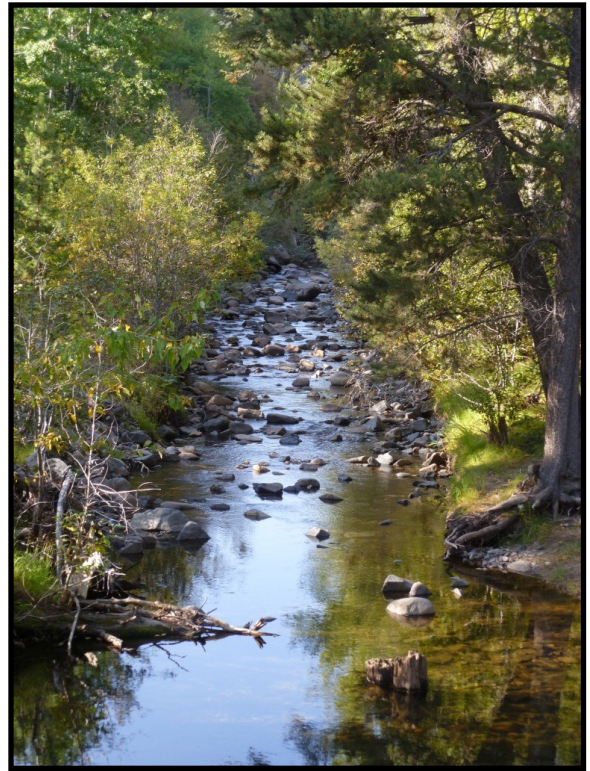
Chris Guy

Outlet

Honorable Mention—Landscape



Leo Rosenthal



Trevor Selch

Dishonorable Mention—Outreach



Wade Fredenberg: (l to r) Larry Peterman, Chris Clancy, and Jerry Wells conducting AFS outreach at Mooses Saloon in 1988.



<https://units.fisheries.org/montana>

2020 Annual Chapter Meeting Continuing Education

The Chapter is offering two half day education courses on Tuesday February 25. The morning course (8 am to noon) is **R for beginners**, and will focus on the ways to load data, data visualization, data exploration, and simple analyses. The afternoon course (1 pm to 5 pm) will teach **DNA based approaches to monitor trends and abundance of fish populations**.

Your Chapter's ExComm and Committee Chairs

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